



AB 549 Project: Reducing Energy Consumption in Existing California Buildings

<http://www.energy.ca.gov/ab549/index.html>

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Dale Trenchel, Project Manager



Residential Strategies

Strategy Name	Primary Role
Information to All Homeowners	Serves as an entry point or “information portal,” providing homeowners and property managers with information, energy audits and program referrals.
Disclosure of Time-of-Sale Home Energy Ratings	Provides key information at the time of sale trigger event, giving homebuyers timely information needed to make voluntary efficiency upgrade and financing decisions.
Equipment Tune-up	Addresses key program gap and energy efficiency opportunity, increase frequency of HVAC tune ups.
Whole Building Diagnostic Testing	Addresses key program gap and energy efficiency opportunity, ID problems and correct them, non-energy benefits.
Low Income Multifamily Housing	Addresses a key program gap and energy efficiency opportunity, while also addressing issues of equity and underserved populations.



Nonresidential Strategies

Strategy Name	Primary Role
Benchmarking	Serves as an entry point or “information portal,” providing commercial building decision makers with information on building performance, energy audits and program referrals.
Retro-commissioning	Addresses a key program gap and energy efficiency opportunity, detect/diagnose/correct faults.
Commercial Leasing	Addresses a key trigger event, motivate owners to make efficiency upgrades.



Residential and Nonresidential

Strategy Category	Strategy Name	Primary Role
Upstream	<u>Incentives and Partnerships</u>	<u>Addresses key program gap and energy efficiency opportunity, encourages use of new energy efficient products.</u>
	<u>Energy Efficiency Procurement</u>	<u>Designed to build market demand and efficiency industry capacity.</u>
	<i>Branding</i>	<i>Designed to support many existing programs, increase efficiency levels of products and increase product use.</i>
<i>Information and Training</i>	<i>Information, Case Studies and Demonstrations</i>	<i>Designed to address information barriers to energy efficiency technology adoption.</i>
	<u>Energy Efficiency Technical Training</u>	<u>Designed to build efficiency industry capacity, increase customer/market confidence in products and services.</u>
Overarching Initiatives	Demand Response	Designed to address key program participation barriers, educate consumers on benefits.
	<u>Energy Efficiency Risk Protection</u>	<u>Designed to address key barriers to energy efficiency technology adoption.</u>
	<i>Interagency Program Coordination</i>	<i>Designed to support existing programs and improve their overall effectiveness in the market.</i>



Annual Energy Savings Estimates

Strategy	GWh	MW	Million therms	As % of Proposed Strategies	As % of Alterations & Additions
Information to All Homeowners	67	23	6	22	31
Disclosure of Residential Time-of-Sale Home Energy Ratings	60	13	4	20	28
Residential Whole Building Diagnostic Testing	58	57	3	19	27
Commercial Building Retro-commissioning	52	26	4	17	24
Commercial Building Benchmarking	26	6	0.4	9	12
Low Income Multifamily Housing	16	26	2	5	8
Residential Equipment Tune-up	15	20	4	5	7
Energy Efficient Commercial Leasing	4	1	0	1	2
Total	300	171	23.8		



Cost and Cost Effectiveness

Strategy	Program Cost (\$million)	Participant Benefit Cost Ratio	Total Resource Cost Benefit Cost Ratio
Information to All Homeowners	50.7	1.95	0.83
Disclosure of Residential Time-of-Sale Home Energy Ratings	16.4	2.9	1.2
Residential Whole Building Diagnostic Testing	23.8	1.1	0.6
Commercial Building Retro-commissioning	22.6	3.8	1.7
Commercial Building Benchmarking	1.9	2.5	1.1
Low Income Multifamily Housing	26.6	3.0	1.3
Residential Equipment Tune-up	NA	2.0	1.3
Energy Efficient Commercial Leasing	0.7	4.6	1.9
Total	142.7		



Recommendations

- More information, enhanced (multi-level interactive) online audits, upgrades to billing information systems, and referrals to financing for residential customers
- More energy efficiency (and financing) information disclosed to buyers when older homes sold
- HVAC tune ups to homes when sold, funding for training
- Further promotion of whole building diagnostic testing for homes, explore risk reduction benefits with insurance industry
- Technical assistance to multifamily property managers, housing agencies and nonprofit organizations
- Increased use of benchmarking for all commercial buildings
- Promote retro-commissioning, target customers by using benchmarking information

More detail...?	
Info to All	Pgs. 9 - 10
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Tune Ups	Pg. 15
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Multifamily	Pg. 21
Benchmarking	Pg. 25
Retro-Cx	Pg. 28



More Recommendations

- Pilot test commercial leasing strategy, move toward fixed based leases – promote model leases
- Further educate building owners on benefits, form partnerships with BOMA, CAR, Energy Star and Energy Commission
- Tenant leverage to periodically benchmark building
- Incentives for automation technologies – consider use of appliance and building standards to bring technologies to market
- Educate consumers on DR benefits

and more details....

Leasing

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Demand
Response

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Upcoming 549 Activity

- Efficiency Committee report to be available early September, 2005.
- Committee report proposed for adoption at September 21, 2005 Business Meeting
- September 30, 2005 report delivered to Legislature



Acknowledgments

- Workshop Participants
- Working Groups- residential and nonresidential members
- Project Advisory Committee
- Expert Panel Members
- Interviewees
- Technical Assistance Consultants
- Energy Commission staff and management